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Knowledge management and innovation: two explicit intentions pursued by Spanish university libraries

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Abstract

This article analyses the content of three types of institutional statements (mission, vision and of values) published on Spanish university libraries' websites. The aim is to determine whether they express explicit support for knowledge management and innovation in the university. The analysis revealed that 75 % of the population (n=76) published at least one such statement. The most widely published of the three types was the mission statement, 37 of which contained the terms 'knowledge' or 'innovation', particularly the former, present in 33. Seventeen libraries' vision statements alluded to both, in practically the same proportion. 'Innovation' appeared in 20 of 28 libraries with statements of values, denoting the high esteem in which that conceit is held by university librarians. These statements stand as proof that libraries regard innovation and some stage of knowledge management as primary aims, with the furtherance of knowledge creation/generation the one most frequently cited.

Keywords: knowledge; innovation; mission statement; vision statement; values statement; Spanish university libraries

Introduction

Organisational culture, a key to effective knowledge management (Nonaka and Takeuchi, 1995), has been shown to be the factor with the heaviest impact on its creation (Kolonari, Vraimaki and Fassoulis, 2018). It is understood to be the suite of values, customs, habits, beliefs, rites, models, standards and behaviour patterns, shared by most of its members, that distinguishes an organisation from all others. These elements constitute its identity, its DNA, and inform its *modus operandi*. In addition to being observable in members' behaviour, they are set out explicitly in corporate documents. The conceptual framework that defines organisations' identity is embodied in their mission and vision statements and statements of values. A mission statement is an organisation's *raison d'être*. Its vision statement defines its goals: where it wants to go and how it intends to get there. Its values are the principles on which its culture rests and serve to create behaviour patterns. These three statements should be the outcome of planning that envisages an organisation's essential components early on, as recommended in any number of management and particularly planning manuals (e.g., Evans and Alire, 2013).

These statements describe an organisation's commitments and beliefs. They should be in line with its members' specific objectives and the latter must be aware of statement content (Kaplan and Norton, 2004), for such awareness or its absence may encourage or discourage knowledge exchange and creation (Alavi and Leidner, 2001). A close correlation has been found, for instance, between the vision statement and innovation in university libraries (Jantz a, 2017). Insofar as values induce behaviour they can be decisive in knowledge management and innovation, particularly if these conceits are explicitly established as such. Innovation is one of the values enshrined by many libraries.

In addition to being clearly defined, statements must be effectively conveyed to ensure integration and interaction across the organisation to generate a shared vision that bonds personal to organisational interests (Moreno-Espinoza, 2009). Today's organisations have a wide range of in-house communication tools that can be used to that end. They also tend to publish their statements on their corporate websites to convey their commitment to their stakeholders and the image the organisation wishes to portray. Mission and vision statements are also often used by companies and other organisations as marketing and public relations tools (Robledo-Ardila and Ríos-Molina, 2013).

This study aims to determine whether Spanish university libraries include innovation and knowledge management in their explicit and shared mission and vision statements and statements of values. Universities' third mission, knowledge transfer to society,

contributes to economic and social progress, with such institutions acting as a platform and agent for innovation (Bueno-Campos, 2007) and libraries afford universities essential support. Given those premises, the initial hypothesis is that university libraries' mission would be expected to include knowledge management and innovation as part of their *raison d'être*, attesting to their commitment to and affinity with the university benefiting from their services.

Knowledge management and innovation. Literature review

Davenport defined knowledge management as systematically finding, selecting, organising, distilling and presenting information in ways that enhance the understanding of a specific area of interest by an organisation's members (Davenport, 1996). Other definitions relate it directly to competitiveness, regarding it as 'the planned and continuous supervision of processes and activities to enhance knowledge and raise competitiveness through the creation and better use of individual and collective knowledge' (Ríos-Delgado, 2012, p. 45).

Innovation has been defined as the economic or social change resulting from a deliberate and intentional process that calls for a suitable atmosphere, capital investment and enthusiastic and engaged leadership (Drucke, 1979). Innovation may begin with the development of in-house processes that foster the ongoing generation of ideas, ultimately leading to new knowledge. Such new knowledge translates into new *modi operandi*,

improvements, solutions, greater efficiency, progress, lower costs, new ways to relate to customers or new organisational models. An organisation's capacity to generate new ideas is consistently associated with knowledge and technology (Martín, 2017), although the latter, depending on the organisation's economic and social environment, is not always a key factor (Parra-García, 2013).

Knowledge management and innovation are closely linked, inasmuch as the former aims to ensure organisations' *acquis*, not only as generated through innovation but also by guaranteeing the accessibility of the knowledge stemming from the organisation's members and its availability when and where needed to further the effectiveness of innovation (Nagles-G, 2007). Knowledge management consequently entails generating new knowledge, innovating. Knowledge makes it possible to create and apply innovation. Since the two ideals pursue the same ends, they should have equal standing in the organisation. Therefore, as Nagles-G (2007) notes, in-house innovation cannot be mobilised or dynamically furthered in organisations in the absence of suitable knowledge management. The existence of that close bond has been proven in the literature (e.g., Akram et al., 2011; Pérez-Logreira et. al., 2016; Zia and Shafiq, 2017). The synthesis and application of knowledge captured is deemed crucial to improving existing services as well as to developing new services in academic libraries (Islam et al., 2015a and 2015b).

In a knowledge society, universities play a decisive role as ‘knowledge-intensive organisations’, specialising in its creation, organisation and dissemination (Serradell-López and Juan-Pérez, 2003). Building on their mission, universities can help establish such a society by managing knowledge geared to strengthening interaction with their surrounding community. In a scenario characterised by the ongoing evolution of ICTs, libraries are in a position to effectively manage all the knowledge produced in a university as a key to innovation. They are the institutions best suited to manage information and knowledge (Llorens-Largo, 2011), for they have routinely adopted the most sophisticated information technologies. ICTs continue to affect universities’ two main purposes: research and knowledge conveyance, systematically supported by academic libraries (Tardón, 1999) which have unvaryingly embraced and furthered the use of technologies in their services. Librarians have consistently lent their support to the creation of new knowledge by securing and managing information and keeping collections up-to-date (Fister, 2015). As such actions may have been perceived more as support for teaching and learning, however, researchers may have not always felt that libraries attend to their needs (Cox and Pinfield, 2014).

Since the nineteen eighties and nineties, knowledge and innovation have been acknowledged as factors vital to library success (Kolonari et al., 2018). Musmann (1982) noted that the capacity to innovate might make librarians more aware of and better prepared to respond to the problems facing them in a turbulent environment.

Today innovation is an aptitude highly valued among librarians. Some deem it to be one of the gaps in their training. Delmás-Ruiz and López-Borrull (2015) showed that the initiative to innovate was one of the weak points in librarians' business culture. Although today's librarians are committed to innovation in their jobs, some encounter limits imposed by the lack of resources or affiliation with a library network. Such shortcomings relate not only to economic investment, but also and especially to facility availability and time to devote to spawning innovative ideas or projects.

Technology is an indispensable support but not a cure-all. One way to broach innovation is by developing a series of in-house processes that further the continuous generation of ideas. An in-house perspective alone does not suffice, however. An organisation genuinely endeavouring to create and capture value through innovation must adopt a broader and more comprehensive view of innovation. A more general focus, which includes stakeholders, must also be established. Users for instance may make helpful contributions to innovation and value co-creation (Yeh and Walter, 2017; Islam et al., 2017), thereby ensuring library success.

The most recent review of innovation in academic libraries, covering papers published up to 2015 and authored by Brundy (2015), concludes that studies on the subject are 'scattered, thin, and, considering the importance of the topic, in need of additional empirical inquiry'. While acknowledging that more articles were published after 2010,

the author deems that they do not suffice to determine the direction of innovation in such libraries and are not useful for library management. Brundy notes, however, that innovation is no longer a mere consideration but a need if libraries are to be useful to their communities, given the funding and technological pressures to which they are subject. The role of academic libraries is diminished by digital technologies, rendering service innovation a strategic imperative (Yeh and Ramírez, 2016). Librarians such as Anglada (2014) are categorical in this respect, contending that if the present generation of librarians is unable to introduce radical changes in libraries' role, these institutions' continuity will be in serious jeopardy. That idea was already in the air in the nineteen nineties, when Bryson (1990) referred to innovation as a survival strategy for university libraries. Other authors such as Lozano (2014) have suggested ways to innovate, even during crises, with ideas such as just-in-time libraries, providing what is needed when it is needed, with demand as the engine that drives the process. Such an approach entails migration from a supply side, just-in-case model to a demand-side, just-in-time model.

The studies published stress that libraries must draw from their specialised resources and services to favour innovation. Librarians deem them essential to support the undertakings of university professors, staff and students, as well as of other interested users associated with enterprising universities. That involves furnishing such support through dynamic and flexible programmes that call upon librarians to provide training, partnering and resources (Howard et al., 2018). Library collaboration with university technological

services is another essential factor. Libraries are valuable partners, although their value is not always acknowledged (Bryan et. al., 2017). When analysing and presenting university knowledge management models and projects, researchers seldom mention the library, even when recognising that a good support system is vital to suitable knowledge management (Rodríguez-Castellanos et al., 2001; Gaviria-Velasquez et al., 2007; Mata-Ordaz and Pesca de Acosta, 2011; Páez-Logreira et al., 2016). Should libraries not be cited and included in that information system? One exception to that rule can be found in Bueno-Campos (2003), who proposes a university knowledge management model that includes the library as part of the structural capital, an infrastructure necessary for research.

Another study describes librarians' contributions to company chartering, licensing and economic development at the University of Arizona (Elliott et al., 2017), and their recognition by university leadership as critical to its strategic plan. Other proposals for innovation view university libraries as competitive intelligence institution, applying innovation models designed for small companies (Ming et al., 2018). The idea is to involve libraries in the furtherance of new business models.

The literature also discusses librarians' tasks as 'knowledge managers', about which various opinions have been expressed. Sánchez Pastor (2000) contends that they can help final users manage their personal knowledge. That author attributes to them the design

and development of tools, methods, systems and services that enable users to share, convey and disseminate their knowledge, while aiding them in the assimilation and integration of the information acquired for subsequent knowledge generation. Pérez-Lindo (2017) deems that librarians who regard themselves as ‘knowledge managers’ must also provide training to enable professors, researchers and students to meet their needs more readily.

The most recent papers on university library knowledge management note that interest in the subject has grown among professionals. It has not been systematically applied in libraries (Koloniari and Fassoulis, 2017), however, which nonetheless realise that KM could create closer links with their parent organisations and help them survive in an ever more challenging environment (Sarrafzadeh et al., 2010). Academic libraries strive to capture their users’ as well as explicit in-house knowledge. They fail to adopt social endeavours such as communities of practice, however, which facilitate tacit information and the exchange of experience (Blanco-Rojas and Archila-Córdoba, 2014).

Although the literature conveys different perceptions about the state-of-play of KG and university libraries, a consensus has been reached in one respect: libraries are aware that innovation is a key to their continuity in the organisations that use their services and for which they, in conjunction with other campus services or units, manage knowledge. University knowledge management is deemed to be essential to their survival because it

affects their success and because, like universities, they must assume innovation as an added value to survive in a competitive world. They must continue to show that they can offer valuable assistance in solving institutional knowledge management-related problems, for that capacity appears to go unnoticed by some actors.

Methodology

The content of 76 libraries' mission and vision statements and statements of values was analysed. All 76 were members of the Spanish network of university libraries (Spanish initials, REBIUN), 50 affiliated with public and 26 with private universities. This population was chosen because REBIUN is a stable institution with a membership that includes all Spain's scientific and university libraries. Their affiliation with the network entails acceptance of and involvement the third strategic plan formulated by REBIUN (2014), which among others aims 'to empower libraries as a driver of innovative university training...'. That objective supports the aims established by universities that pursue the furtherance of open knowledge through institutional repositories or the placement of free course content on online education platforms (open course ware, OCW). 'Innovation and the development and implementation of new technological and digital projects to encourage the use of and access to scientific and technical information custodied by libraries' is another of the plan's knowledge dissemination objectives. The inclusion of such priorities as explicit aims infers that the largest network of Spanish

university libraries supports the commitment by its members to knowledge management and innovation.

The first step was to collect the statements published on these libraries' websites in November 2018. Only the texts headed by the words 'mission', 'vision' or 'values' were collected. Content labelled by libraries as purpose, objectives or similar to refer to their activity was disregarded if the aforementioned general terms were absent.

The web pages where these statements were found included those carrying libraries' strategic plans, citizen charters or sections explicitly designed for such content, including 'About the library', 'About us' and 'General information'. Some libraries published the statements in more than one document with similar but not identical versions. In such cases the version used was the one deemed to be most complete or the one found in the citizen charter, as appropriate, given that the charter is a commitment to citizens or library service users. In Spanish law, such charters are the outcome of the pursuit of improved public service quality in keeping with citizens' needs.

The presence of the words 'knowledge' and 'innovation' was identified in the statements retrieved, coding those that included the term 'knowledge' and 'innovation' as 1 and all others as 0, for the two terms are not synonymous but complementary and, as discussed in the review of the literature, the latter is dependent upon the former. The identification and quantification of these terms in all the university libraries provided objective evidence

of whether they are explicitly committed through their mission statements to managing the knowledge in place in their respective institutions. The words accompanying 'knowledge' were also retrieved to ascertain the knowledge management stages or processes prioritised by libraries.

Inasmuch as the explicit reference to knowledge and innovation in mission statements did not suffice to determine how libraries' working strategies are implemented, their websites were reviewed in a second stage of the study to determine whether they had a strategic plan. The existence or otherwise of lines of action geared to those objectives could not be established in the seven plans located, however. Although plan implementation was not questioned, the information gathered proved to be insufficient for the aims pursued here. Verification in that regard would have to be sought in reports on plan fulfilment to determine the possible achievement of knowledge management aims. Moreover, even where extant, such reports are not necessarily published on institutional websites. For those reasons, this study will be followed up by an analysis of librarians' replies to a survey on the action undertaken to ensure effective management of their own and their universities' knowledge.

Results

Of the 76 libraries studied, 57 (75 %) had published at least one of the statements. In all, 56 mission and 28 vision statements and 28 statements of values were analysed. The

number of libraries with statements containing the terms ‘knowledge’ or ‘innovation’ is given in Table 1 by type of university and statement.

Table 1. Total number of libraries (T) libraries in public (PU) and private universities (PR) in which mission and vision statements and statements of values contained the words ‘knowledge’ or ‘innovation’

	Mission statement (n=56)			Vision statement (n =28)			Statement of values (n=28)		
	PU	PR	T	PU	PR	T	PU	PR	T
KG	25	6	31	4	2	6	1	0	1
IN	1	2	3	6	2	8	19	1	20
KG and IN	3	0	3	3	0	3	0	0	0
Neither KG nor IN	13	6	19	11	0	11	7	0	7

The mission statements of 31 (25 in public and six in private universities) of the **56 libraries** with such statements (55.35 %) contained the term ‘knowledge’, three (5.35 %) included the word ‘innovation’ and three (5.35 %) both (Figure 1).

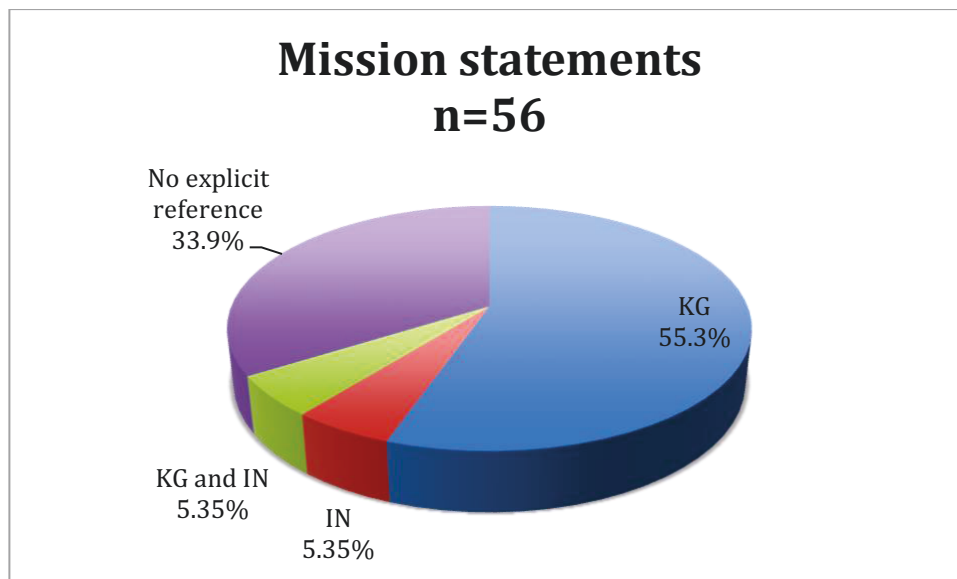


Figure 1. Mission statements: explicit reference to 'knowledge' and 'innovation'

Of the **28 vision statements** collected, specific reference to 'knowledge' was found in six (21.4 %), to 'innovation' in eight (28.5 %) and to both in three (10.7 %) (Figure 2).

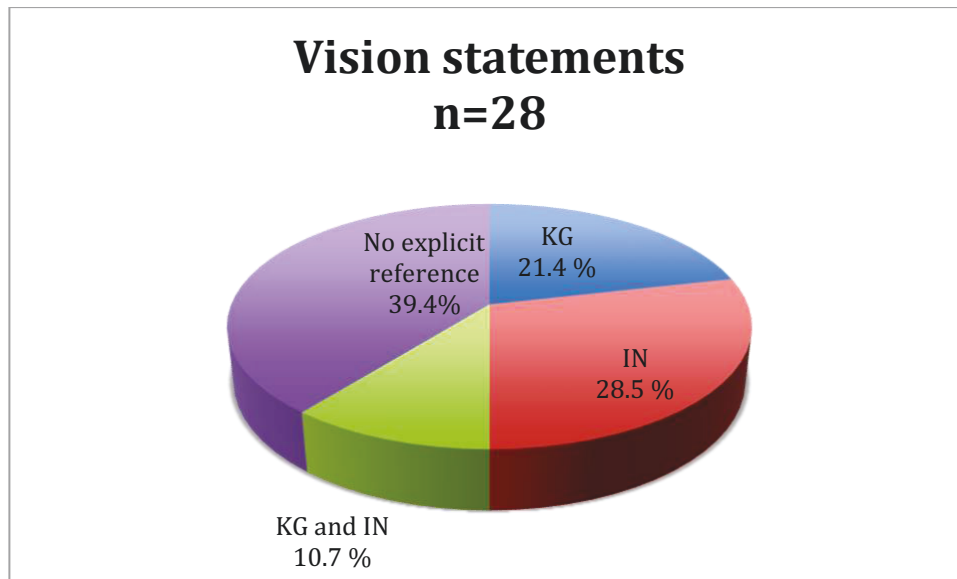


Fig. 2. Vision statements: explicit reference to 'knowledge' and 'innovation'

Of the statements of values published by **28 libraries**, only one (3.5 %) contained the word 'knowledge' and 20 (71.4 %) 'innovation', inferring that the latter is highly regarded by a majority of librarians.

Overall, a total of eight libraries, all affiliated with public universities, included the terms 'knowledge', 'innovation' or both in the three statements (Table 2). The relationship and differences between the two terms was visible in those libraries and especially in two of them, which included both in their mission and vision statements and innovation in their values.

Table 2. Spanish public university libraries including the terms ‘knowledge’ and ‘innovation’ in their mission and vision statements and statements of values

No. Libraries	Mission statement	Vision statement	Statement of values
3	KG	IN	IN
3	KG	KG	IN
2	KG and IN	KG and IN	IN

The mission and vision statements of the university libraries with explicit reference to both terms, cited below, constitute examples of good practice:

	University of Seville	Autonomous University of Barcelona
MISSION	‘the library’s mission is to manage an information environment in continuous flux to contribute to learning, research and <i>innovation</i> in the university through strategies of sustainable and socially responsible service excellence that furthers <i>knowledge generation and transfer</i> .’	‘the library service’s mission is to provide information resources and the highest quality services in keeping with the UAB’s excellence objectives in education, research, <i>innovation</i> and <i>knowledge transfer</i> .’
VISION	‘to establish strategies and quality services focused on the university community and society through: the creation of versatile spaces for study and individual and group work; management, conservation and effective access to stacks and the USe’s scientific and academic output; <i>innovative</i> services that support students’ comprehensive training and professors’ and researchers’ <i>knowledge creation</i> ; management excellence by proactive and competent professionals; and alliances to advance and foster social engagement and sustainability.’	‘the information commons must be an information and resource benchmark throughout the university community for learning, teaching and research. It participates in <i>innovation</i> , <i>knowledge transfer</i> and talent creation and ranks highly on the list of Spanish and international university library systems.’

The pursuit of specific, effective action into which these mission and vision statements might translate in terms of knowledge and innovation management led to an analysis of libraries’ strategic plans. Only seven such plans were found to be in effect. The lines of

action cited in connection with library staff and university knowledge management are summarised below.

- ‘Good practice and knowledge management’ seminars are held yearly to pool collective knowledge on resources, processes and services rendered and further knowledge management among library staff. These seminars are open to non-library personnel in the same and other countries to favour the exchange of experience and knowledge around new practices geared to improving management and services.
- Strategies are designed in conjunction with productive and social networks in the surrounding community in particular and society in general to favour the transfer of and open access to the scientific knowledge generated by the institution.
- Standing lines of collaboration and communication are created with other university units and services to improve the support for research-generated knowledge transfer and management with documentary management techniques and competencies specific to librarianship.
- Support and training in areas such as open data, open access publications and use of research data repositories are provided for researchers to further the visibility and accessibility of the knowledge generated.
- Co-working space is created for researchers to foster knowledge generation.

These lines of action, which focus systematically on the constructive use of library technologies, are aligned with those identified in some of the experiences summarised in the review of the literature.

Although the plans retrieved contained references to the need to innovate, no specific action to materialise that aim was identified. The University of Zaragoza library was the only institution that mentioned the creation of an innovation plan as one of its aims. If such a plan exists, however, it could not be located on the library's website. Nonetheless, related information showed that it was distinguished by the Council for Library Cooperation for a 2017 initiative to lend vegetable seeds. The aim was to establish a full cycle of seed loans and returns and gather data on sowing and plant growth for subsequent analysis.

Not all the libraries including the word 'knowledge' in their statements alluded to the entire process or the usual phrase 'knowledge management'. The terms found in conjunction with 'knowledge' are listed in Table 3. The most common was 'creation' (or 'generation'), followed by 'conveyance' (or 'dissemination' or 'transfer') and 'management'. Some libraries used more than one, combining 'creation and dissemination', for instance, or 'management and conveyance'. Other words appearing in the set were the verbs 'to share' and 'to develop'. Two libraries referred to 'transforming information into knowledge', a process associated with knowledge creation

or generation. As García-García (2008, p. 73) noted, that expression appeared in the ALA's definition of the university library in 1989 and 'what this definition shows is that libraries' task is not to provide information, but to collaborate with users to transform that information into knowledge, a much more subtle and significant undertaking'. That idea is still explicit in these libraries' *raison d'être*.

Table 3. Knowledge processes or stages alluded to in libraries' mission and vision statements

Process or stage of knowledge reflected	No. of mentions in libraries
Creation (or generation)	31
----- Transformation of information into knowledge	3
Conveyance (or dissemination or transfer)	21
Management	4
To share	2
To develop	1

The 31 libraries that used the expression 'knowledge creation' in their mission statements may be assumed to have the most innovative services. That assumption is based on Islam et al.'s (2015a) findings, which endorsed the opinion that the academic libraries best able to create knowledge can offer their users more innovative services. Those authors also contended that the academic libraries with the most highly developed knowledge usage and application practices also offer more new services.

Further to the data in Table 1, the word ‘innovation’ was found primarily in the statements of values. It was associated essentially with technology. In seven cases it appeared in conjunction with other terms: technological innovation (5), teaching innovation (1) and educational innovation (1). It was also associated with creativity, such as in the University of Cadiz, with the following wording: ‘We leverage our intellectual and technological capital by imbuing our products with creativity and innovation’. It was also found as an adjective preceding the word ‘services’.

To determine whether the 34 libraries including ‘knowledge’ in their mission statements were aligned with their respective universities, the term was sought in the statements published by the latter. The findings were as follows:

- 20 (58.8 %) university mission statements, like those of their libraries, included the term, an indication that over half of the libraries explicitly seconded and supported their university’s mission
- 7 (20.5 %) university mission statements made no reference to ‘knowledge’, whereas their libraries’ statements did
- 7 (20.5 %) universities published no mission statement, unlike their libraries, which included the term ‘knowledge’ in theirs.

Conclusions

On the whole, the literature on knowledge management is closely related to innovation, for knowledge management is deemed to be indispensable as an innovation enabler. More specifically, the literature on knowledge management by university libraries addresses the subject from two perspectives: experiences and models on how to apply this management technique in libraries as organisations (e.g., Blanco-Rojas and Archila-Córdoba, 2014; Koloniari et al., 2018); and experiences and theoretical models on how libraries should manage the knowledge produced in their universities. Although some authors report that university libraries have successfully managed the institution's knowledge, others deem that practices that would ensure effective knowledge management have yet to be implemented (Blanco-Rojas and Archila-Córdoba, 2014). Researchers seeking to implement knowledge management models in universities tend to ignore libraries as a necessary element in the information system or at least fail to cite them in their papers. Such scant acknowledgement might be the result of greater visibility of other services also involved in knowledge management activities, such as universities' knowledge transfer bureaus or centres, which would eclipse libraries' efforts. The former, institutional channels that support researchers and companies associated with the university, help strengthen the bonds between the university and the surrounding community (companies and institutions).

The status of knowledge management is similar and closely related to that of the management of universities' research data. Although the situation varies from country to country, libraries are not always lead actors in this regard. Other services such as research offices are more prominent, despite the recognition of university libraries' RIM (research information management) -related functions (Bryant et al., 2017). Some authors consequently call for a change in attitude that would encourage librarians to act as proactive research agents (González-Solar, 2017).

Inasmuch as 75 % of Spanish university libraries include references in their mission or vision statements or statements of values to knowledge management and innovation, they (especially the public institutions) can be said to be committed to those conceits. Most are in step with the respective university's stated mission. Publication of these statements on their websites denotes their desire to disseminate their essential purpose and organisational strategy, and to contribute to meeting REBUIN objectives in support of innovation and knowledge management.

The high rate of occurrence of the term 'knowledge' in libraries' mission statements (33 of 56) is in keeping with universities' mission, inasmuch as it the third most common conceit found in their statements the world over (Cortés-Sánchez, 2018). In Spain, both 'knowledge' and 'innovation' appear in public universities' mission statements (Arias et al., 2018). Such concordance attests to the explicit alignment between Spanish libraries'

and universities' missions. Knowledge can be inferred to be a strategic priority for both types of institution, given the presence of the word in their respective mission statements, the basis for establishing their priorities, strategies and action plans.

As discussed in the results, 'knowledge' is a term associated essentially with the mission statement (the means), whereas 'innovation' is related to the vision statement (the end). That preferential attachment in the population analysed corroborates the relationship between the variables 'knowledge management' and 'innovation'. Innovation (the end - vision) is only possible if knowledge can be managed (the means - mission).

Innovation is a value shared by many librarians, for 20 of the libraries studied here explicitly mention the term in their statements of values, a finding supported by the literature. Nonetheless, the need to surmount the stasis associated with librarianship continues to be stressed, along with the idea that librarians must overcome the conservatism that views past action as inherently right (Budd, 2008). Strong leadership is needed to manage innovation (Jantz b, 2017) and rise to the challenges imposed by a changing environment.

Spanish university libraries identify primarily with the creation or generation stage of knowledge management, although none of the stages (conveyance, transformation, development, sharing, dissemination...) was absent in the population analysed. The strategic plans of some of these libraries contain objectives and actions geared to

implementing their statements. Such actions are also related to the generation and dissemination of their universities' knowledge base.

The presence in their statements of such a variety of terms is an indication that libraries deem they have both the human resources and the infrastructure needed to handle the flow of university-generated knowledge to society, from the creation to the conveyance or dissemination stage. Their resources may help ensure the success of key knowledge-related activities: university-company research partnering, patents and licences, research contracts, technological alliances, company chartering (spin-offs and start-ups) and within academia, open education via MOOCs and similar.

Limitations and suggestions for future research

One word of caution is in order with respect to the present findings: a library's failure to publish one of the statements analysed here on its website does not mean it does not exist. It may: the university may simply not deem its online communication to be necessary.

In another vein, as stated in the title of this article, knowledge management and innovation are explicit intentions. Future research should be geared to determining their implementation. In other words, it should address how libraries manage knowledge and innovate in practice. The findings discussed here must be supplemented with interviews and case studies to corroborate compliance with institutions' corporate commitments.

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